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LANGUAGE ABBREVIATIONS

An initial capital denotes the language of the paper; an initial small letter, the language of the summary.

Af	Afrikaans	Fr	French	Nl	Dutch
Al	Albanian	Gr	Greek	No	Norwegian
Ar	Arabic	He	Hebrew	Pe	Persian
Az	Azerbaijani	Hi	Hindi	Pl	Polish
Be	Byelorussian (White Russian)	Hu	Hungarian	Pt	Portuguese
		Ia	Interlingua	Ro	Romanian
Bg	Bulgarian	In	Indonesian	Ru	Russian
Ch	Chinese	Is	Icelandic	Sh	Serbo-Croat (either Latin or Cyrillic script)
Cs	Czech	It	Italian		
Da	Danish	Ja	Japanese	Sk	Slovak
De	German	Ko	Korean	Sn	Slovene
Ee	Estonian	La	Latin	Sv	Swedish
En	English	Li	Lithuanian	Ta	Tajik
Eo	Esperanto	Lv	Latvian	Th	Thai
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Many other serials were scanned during 1992 but no relevant articles were selected. A full list of all the serials scanned for items suitable for abstracting for the CAB ABSTRACTS database and the whole range of CABI's abstract journals is given in the *CAB International Serials Checklist, 1988 edition.* The publication includes ISSNs and publishers' addresses.

Acarologia
ACS Symposium Series
Acta Agraria et Silvestria. Series Silvestris
Acta Agriculturae Shanghai
Acta Agronómica, Universidad Nacional de Colombia
Acta Botanica Indica
Acta Entomologica Sinica
Acta Horticulturae
Acta Mycologica Sinica
Acta Oecologica
Acta Physiologiae Plantarum
Acta Phytopathologica et Entomologica Hungarica
Acta Scientiarum Naturalium Universitatis Sunyatseni
Acta Seriologica Sinica
Acta Tropica
Acta Veterinaria Scandinavica
Acta Virologica
Acta Zoologica Hungarica
Advances in Ecological Research
Advances in Horticultural Science
Afro-Asian Journal of Nematology
Agricultura (Madrid)
Agricultura em Sao Paulo
Agricultural History
Agricultural Research (Washington)
Agricultural Research Review
Agricultural Science Digest (Karnal)
Agricultural Sciences
Agricultural Zoology Reviews
Agriculture International
Agriculture, Ecosystems & Environment
Agriscience
Agrokhimiya
Agronomía Colombiana
AIAS Occasional Publication
Alexandria Journal of Agricultural Research
American Entomologist
American Journal of Tropical Medicine and Hygiene
American Naturalist
Anais da Sociedade Entomológica do Brasil
Anais, Reunião da Cultura do Arroz Irrigado
Analele Institutului de Cercetări pentru Protectia Plantelor
Angewandte Parasitologie
Animal Behaviour
Annales Agriculturae Fenniae
Annales de la Société Entomologique de France
Annales de Parasitologie Humaine et Comparée
Annali dell'Istituto Sperimentale per la Floricoltura
Annali dell'Istituto Sperimentale per l'Agrumicoltura
Annali della Facoltà di Scienze Agrarie della Università degli Studi di Napoli, Portici
Annals of Applied Biology
Annals of Arid Zone
Annals of Botany
Annals of the Entomological Society of America
Annals of the Phytopathological Society of Japan
Annual Report of the Society of Plant Protection of North Japan
Annual Review of Entomology
Annual Review of Phytopathology
Antonie van Leeuwenhoek
Anzeiger für Schädlingskunde, Pflanzenschutz, Umweltschutz
Applied and Environmental Microbiology
Applied Entomology and Zoology
Applied Microbiology and Biotechnology
Arastırma Yayınları Serisi Yayın
Archiv für Phytopathologie und Pflanzenschutz
Archiv für Protistenkunde
Archives of Insect Biochemistry and Physiology
Arkansas Farm Research
Arroz
Aspects of Applied Biology
Assiut Journal of Agricultural Sciences
Australasian Plant Pathology
Australian & New Zealand Wine Industry Journal
Australian Forestry
Australian Journal of Agricultural Research
Australian Journal of Experimental Agriculture
Australian Journal of Zoology
Australian Systematic Botany
Australian Veterinary Journal
Australian Wildlife Research
Behavioral Ecology and Sociobiology
Beltsville Symposia in Agricultural Research
Bio/Technology
Biocontrol News
Biocontrol News and Information
Biocontrol Science and Technology
Biológia (Bratislava)
Biological Agriculture & Horticulture
Biological Control
Biological Journal of the Linnean Society
Biology and Fertility of Soils
Biology of Behaviour
Bioorganicheskaya Khimiya
BioScience
Biotech Forum Europe
Biotekhnologiya
Biotrop Special Publication
Biotropia
Bioved
Biuletyn Warzywniczy
Boletim da Sociedade Portuguesa de Entomologia
Boletín Chileno de Parasitología
Boletín de Sanidad Vegetal, Plagas
Boletin Informativo - Manejo Integrado de Plagas
Boletín Micológico
Bolletino di Zoologia Agraria e Bachicoltura
Bollettino del Laboratorio di Entomologia Agraria 'Filippo Silvestri'
Bollettino dell'Istituto di Entomologia della Università degli Studi di Bologna
Bollettino della Società Entomologica Italiana
Bollettino di Zoologia Agraria e di Bachicoltura
Botanical Bulletin of Academia Sinica
BPP, Buletinul de Protectia Plantelor
Bragantia
Brenesia
British Journal of Entomology and Natural History
British Mosquito Group Newsletter
British Mycological Society Symposium Series
Buletini i Shkencave Bujqësore
Bulletin & Annales de la Société Royale Belge d'Entomologie
Bulletin - Virginia Agricultural Experiment Station
Bulletin de l'Institut Royal des Sciences Naturelles de Belgique, Entomologie
Bulletin de la Société de Pathologie Exotique et de ses Filiales
Bulletin OEPP
Bulletin of Entomological Research
Bulletin of Entomology (New Delhi)
Bulletin of Faculty of Agriculture, University of Cairo
Bulletin of the Entomological Society of America
Bulletin of the Entomological Society of Egypt, Economic Series
Bulletin of the Entomological Society of New Zealand
Bulletin of the Faculty of Agriculture, Shimane University
Bulletin of the Fruit Tree Research Station
Bulletin of the Irish Biogeographical Society
Bulletin of the Nara Agricultural Experiment Station
Bulletin of the Society for Vector Ecology
Bulletin of the University of Agricultural Science, Gödöllő
Bulletin SROP
Byulleten' Vsesoyuznogo Instituta Gel'mintologii im. K. I. Skryabina
Café, Cacao, Thé
California Agriculture
California Fish and Game
Canadian Entomologist
Canadian Field-Naturalist
Canadian Journal of Botany

Canadian Journal of Forest Research
Canadian Journal of Microbiology
Canadian Journal of Plant Pathology
Canadian Journal of Plant Science
Canadian Journal of Zoology
Canadian Plant Disease Survey
Carta Trimestral - Centro de Investigación de la Caña de Azúcar de Colombia
Cecidologia Internationale
Centro Agrícola
Česká Mykologie
China Fruits
Chinese Journal of Biological Control
Chinese Journal of Entomology
Chinese Journal of Microbiology and Immunology
Chinese Journal of Rice Science
Chinese Journal of Zoology
Ciência e Cultura (São Paulo)
Ciencia y Técnica en la Agricultura, Arroz
Ciencia y Técnica en la Agricultura, Cítricos y Otros Frutales
Ciencia y Técnica en la Agricultura, Veterinaria
Ciencias Biológicas (La Habana)
Circular Técnica - Centro Nacional de Pesquisa de Gado de Corte
Coleopterists Bulletin
Comparative Biochemistry and Physiology. B, Comparative Biochemistry
Comparative Biochemistry and Physiology. C, Comparative Pharmacology and Toxicology
COMPONENTS
Computer Applications in the Biosciences
Comunicado Técnico - Centro Nacional de Pesquisa de Gado de Corte
Coton et Fibres Tropicales
Critical Reviews in Microbiology
Crónica Forestal y del Medio Ambiente
Crop Protection
Cruciferae Newsletter
Current Microbiology
Current Nematology
Current Opinion in Biotechnology
Current Research - University of Agricultural Sciences (Bangalore)
Current Science
Cytologia
Deutsche Entomologische Zeitschrift
Difesa delle Piante
Documentos, Centro Nacional de Pesquisa de Soja, EMBRAPA
Documentos, Unidade de Execução de Pesquisa de Âmbito Estadual de Dourados, EMBRAPA, Brazil
Doğa, Türk Tarım ve Ormancılık Dergisi
Doklady Vsesoyuznoĭ Ordena Lenina i Ordena Trudovogo Krasnogo Znameni Akademii Sel'skokhozyaĭstvennykh Nauk im. V.I. Lenina
Doklady, Biological Sciences
Ecological Entomology
Ecology
Economie Rurale
Ege Üniversitesi Ziraat Fakültesi Dergisi
Egyptian Journal of Botany
Egyptian Journal of Phytopathology
Ekologija
Entomologia Experimentalis et Applicata
Entomological News
Entomologicheskoe Obozrenie
Entomologische Mitteilungen aus dem Zoologischen Museum Hamburg
Entomologische Nachrichten und Berichte
Entomologist
Entomologist's Gazette
Entomologist's Monthly Magazine
Entomology Memoir, Republic of South Africa, Department of Agriculture
Entomon
Entomophaga
Entomotaxonomia
Environment and Ecology
Environmental Conservation
Environmental Entomology
Enzyme and Microbial Technology
Eos (Madrid)
Esakia
Ethology
European Journal of Forest Pathology
European Journal of Protistology
Evolution
Evolutionary Ecology
Experientia
Experimental & Applied Acarology
Experimental Mycology
Extension Bulletin - Cooperative Extension, College of Agriculture & Home Economics, Washington State University
FAO Plant Production and Protection Paper
FAO Plant Protection Bulletin
Farm Science Journal
Fauna of Saudi Arabia
Faune de France
FEMS Microbiology Ecology
FEMS Microbiology Letters
Fish Farmer
Fitopatología
Florida Entomologist
Folia Microbiologica
Forest Ecology and Management
Forest Pest and Disease
Forest Research
Forestry (Oxford)
Forestry Chronicle
Forst und Holz
Fragmenta Entomologica
Fruit Science Reports
Fruits (Paris)
Frustula Entomologica
Fulls d'Informació Tecnica
Functional Ecology
Fundamental and Applied Nematology
Game Conservancy Review
Gatekeeper Series - Sustainable Agriculture Programme, International Institute for Environment and Development
Genetic Engineer and Biotechnologist
Gujarat Agricultural University Research Journal
Handbooks for the Identification of British Insects
Haryana Agricultural University Journal of Research
Health Education Research
Hilgardia
Hydrobiologia
IAR Newsletter of Agricultural Research
ICLARM Conference Proceedings
IDESIA
IITA Research
Impact AgBioBusiness
Indian Agriculturist
Indian Cocoa, Arecanut and Spices Journal
Indian Journal of Agricultural Sciences
Indian Journal of Animal Sciences
Indian Journal of Ecology
Indian Journal of Entomology
Indian Journal of Experimental Biology
Indian Journal of Medical Research. Section A, Infectious Diseases
Indian Journal of Mushrooms
Indian Journal of Mycology and Plant Pathology
Indian Journal of Plant Protection
Indian Journal of Pulses Research
Indian Journal of Weed Science
Indian Perfumer
Indian Phytopathology
Indian Sugar
Informa - Servicio Nacional de Protección Forestal
Information Report - Forest Pest Management Institute, Forestry Canada
Information Series - Virginia Polytechnic Institute and State University, College of Agriculture and Life Sciences
Informatore Agrario
Informatore Fitopatologico
Insect Biochemistry
Insect Biochemistry and Molecular Biology
Insect Knowledge
Insect Molecular Biology
Insect Science and its Application
Insecta Koreana
International Arachis Newsletter
International Journal for Parasitology
International Journal of Acarology
International Journal of Ecology and Environmental Sciences
International Journal of Food Microbiology
International Journal of Insect Morphology & Embryology
International Journal of Systematic Bacteriology
International Nematology Network Newsletter
International Pest Control
International Rice Research Newsletter
International Zoo Yearbook
Invertebrate Taxonomy
Iowa State Journal of Research
IPEF (Instituto de Pesquisas e Estudos Florestais)
IPM Practitioner
Irish Naturalists' Journal
Israel Agresearch
Israel Journal of Veterinary Medicine
Israel Journal of Zoology
Izvestiya Akademii Nauk Azerbaĭdzhanskoĭ SSR, Biologicheskikh Nauk
Izvestiya Akademii Nauk Turkmenskoĭ SSR. Seriya Biologicheskikh Nauk
Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR. Seriya Biologicheskikh Nauk
Japan Pesticide Information
Japanese Journal of Applied Entomology and Zoology
Japanese Journal of Entomology
Japanese Journal of Sanitary Zoology

Japanese Journal of Soil Science and Plant Nutrition
JARQ, Japan Agricultural Research Quarterly
Journal of African Zoology
Journal of Agricultural and Food Chemistry
Journal of Agricultural Entomology
Journal of Agricultural Research of China
Journal of Agricultural Science
Journal of Agriculture of the University of Puerto Rico
Journal of Agronomy and Crop Science
Journal of Animal Ecology
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Journal of Applied Ecology
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Journal of Basic Microbiology
Journal of Biological Control
Journal of Biological Science Research
Journal of Chemical Ecology
Journal of Coffee Research
Journal of Communicable Diseases
Journal of Comparative Physiology. A, Sensory, Neural, and Behavioral Physiology
Journal of Ecobiology
Journal of Economic Entomology
Journal of Entomological Research
Journal of Entomological Science
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Journal of General and Applied Microbiology
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Journal of Helminthology
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Journal of Pesticide Reform
Journal of Pesticide Science
Journal of Phytopathology
Journal of Plantation Crops
Journal of Protozoology
Journal of Research, Punjab Agricultural University
Journal of Shenyang Agricultural University
Journal of South China Agricultural University
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Journal of the Australian Entomological Society
Journal of the Bombay Natural History Society
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Journal of the Lepidopterists' Society
Journal of the National Science Council of Sri Lanka
Journal of the New York Entomological Society
Journal of the Science of Food and Agriculture
Journal of Virological Methods
Journal of Virology
Journal of Zoology
Kartofel' i Ovoshchi
Korean Arachnology
Korean Journal of Applied Entomology
Korean Journal of Applied Microbiology and Bioengineering
Korean Journal of Entomology
Korean Journal of Plant Pathology
Las Polski
Lavoura Arrozeira
Lesnictví
Lesovodstvo i Agrolesomelioratsiya
Letters in Applied Microbiology
Leucaena Research Reports
Liebigs Annalen der Chemie
Lietuvos TSR Aukštųjų Mokyklų Mokslo Darbai, Biologija
Malayan Nature Journal
Malezas
Manejo Integrado de Plagas
MAPPS Newsletter
MARDI Research Journal
Materiały Sesji Instytutu Ochrony Roślin
Material und Organismen
Médecine Tropicale
Mededelingen van de Faculteit Landbouwwetenschappen, Rijksuniversiteit Gent
Medical and Veterinary Entomology
Microbiology Ecology
Micronesica
Mikológiai Közlemények
Mikologiya i Fitopatologiya
Mikrobiologicheskiĭ Zhurnal
Mikrobiologiya
Miscellaneous Publication - Texas Agricultural Experiment Station
Miscellaneous Publication, Australian Entomological Society
Miscellaneous Report - Cyprus Agricultural Research Institute
Mitteilungen aus dem Zoologischen Museum in Berlin
Molecular and General Genetics
Molecular Microbiology
Molecular Plant-Microbe Interactions
Monograph - British Crop Protection Council
Montana AgResearch
Mushroom Journal
Mushroom Science
Mycologia
Mycologia Helvetica
Mycological Research
Mycologist
Mycopathologia
Mycotaxon
Mysore Journal of Agricultural Sciences
Nachrichtenblatt des Deutschen Pflanzenschutzdienstes
Nachrichtenblatt Pflanzenschutz
National Academy Science Letters
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Natural Areas Journal
Nature (London)
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Nematologia Mediterranea
Nematologica
Nematology Circular (Gainesville)
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Netherlands Journal of Plant Pathology
New Phytologist
New Scientist
New Zealand Entomologist
New Zealand Journal of Crop and Horticultural Science
New Zealand Journal of Forestry Science
New Zealand Journal of Zoology
New Zealand Veterinary Journal
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Pakistan Journal of Nematology
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Pesquisa Agropecuária Brasileira
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Pesticide Outlook
Pesticide Science
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Philippine Agriculturist

Philippine Journal of Biotechnology
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Physiological and Molecular Plant Pathology
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Phytophylactica
Phytoprotection
PKV Research Journal
Plant and Soil
Plant Disease
Plant Disease Research
Plant Pathology
Plant Physiology
Plant Protection Bulletin (Faridabad)
Plant Protection Bulletin (Taipei)
Plant Protection News
Plant Protection Quarterly
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Plantsman
Pochvoznanie i Agrokhimiya
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Potato Research
Prace Instytutu Badawczego Leśnictwa
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Přírodovědné Práce Ústavů Československé Akademie Věd v Brně
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Proceedings - Soil and Crop Science Society of Florida
Proceedings and Papers of the Annual Conference of the California Mosquito and Vector Control Association, Inc.
Proceedings of Pakistan Congress of Zoology
Proceedings of the Annual Congress - South African Sugar Technologists' Association
Proceedings of the Annual Meeting - Arkansas State Horticultural Society
Proceedings of the Annual Meeting of the Utah Mosquito Abatement Association
Proceedings of the Association for Plant Protection of Kyushu
Proceedings of the Australian Society of Sugar Cane Technologists.
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Proceedings of the Indian Academy of Sciences, Plant Sciences
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Progrès Agricole et Viticole
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Psyche (Cambridge, Mass)
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Rapport d'Activité, Entente Interdépartementale pour la Démoustication du Littoral Méditerranéen
Redia
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Research in Veterinary Science
Research Paper - Southeastern Forest Experiment Station, USDA Forest Service
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Research Reports of the Rural Development Administration, Crop Protection
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Sborník Vysoký Školy Zemědělské v Praze, Fakulta Agronomická, A (Rostlinná Výroba)
Schweinewelt
Schweizerische Zeitschrift für Forstwesen
Science (Washington)
Science Progress
Scientific American
Seed Research
Seed Science and Technology
Senckenbergiana Biologica
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Smithsonian Contributions to Zoology
Sociobiology
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South Pacific Commission Information Document
Southeast Asian Journal of Tropical Medicine and Public Health
Southwestern Entomologist
Southwestern Naturalist
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Systematics Association Special Volume
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Tasforests
Tea
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Tecnica Agricola
The insects and arachnids of Canada
Tigerpaper
Tijdschrift voor Entomologie
Transactions of the Shikoku Entomological Society
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Veterinária e Zootecnia (São Paulo)
Veterinary Parasitology
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Virology (New York)
Virus Genes
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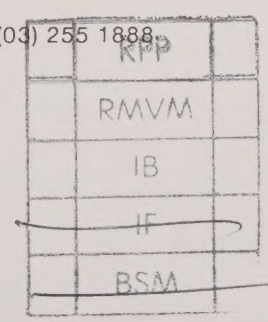

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Crop Protection & Genetics
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International Mycological Institute
Director, Professor D.L. Hawksworth, recently moved to Bakeham Lane, Egham, Surrey, TW20 9TY.

International Institute of Parasitology
Director, Dr R. Muller, located at Winches Farm, St Albans, the field station of the London School of Hygiene & Tropical Medicine.

International Institute of Biological Control ,
Director, Dr J.K. Waage, has its headquarters at Silwood Park, Ascot and stations in Trinidad and Tobago, Switzerland, Pakistan, Kenya and Malaysia.

These Institutes provide an authoritative identification service for agricultural pests and other organisms, a biocontrol service, and conduct research, implement projects, and provide training in their fields of expertise.

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